



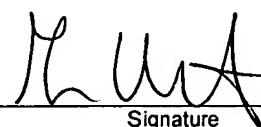
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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) M4065.0993/P993	
	Application Number 10/751,440-Conf. #2571	Filed January 6, 2004	
	First Named Inventor Peter P. Altice, Jr.		
	Art Unit 2622	Examiner C. W. Chen	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>41,198</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> <p> _____ Signature</p> <p>Gianni Minutoli _____ Typed or printed name</p> <p>(202) 420-3191 _____ Telephone number</p> <p>May 27, 2008 _____ Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of <u>6</u> forms are submitted.</p>			



Docket No.: M4065.0993/P993  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Peter P. Altice, Jr.

Application No.: 10/751,440

Confirmation No.: 2571

Filed: January 6, 2004

Art Unit: 2622

For: IMAGER DEVICE WITH DUAL STORAGE  
NODES

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Examiner: C. W. Chen

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

MS AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellant respectfully requests a review of the legal and factual bases for the rejections in the above-identified patent application. Pursuant to the guidelines set forth in the Official Gazette Notice of July 12, 2005 for the Pre-Appeal Brief Conference Program, favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

A Reply To Final Action Under 37 C.F.R. § 1.116 was filed on April 25, 2008. The Advisory Action mailed on May 15, 2008 maintains the 35 U.S.C. §103(a) rejections of claims 1-45 in Final Office Action mailed on January 28, 2008 ("Final Rejection"). These rejections are the subject of this appeal.

The Advisory Action states that the rejections of claims 1-45 are sustained because "[t]he 'image capture cycle' of [U.S. Patent No. 7,286,174 ('Weale')] is construed as the 'integration period' taught in the instant application." Appellant respectfully submits that Weale's "image capture cycle" cannot be construed as the "integration period" of the present application.

The present application teaches away from construing “integration period” as the “image capture cycle” of Weale because the “image capture cycle” of Weale comprises two integration periods, wherein the photosensor is reset between the integration periods. Weale, col. 12, lns. 13-23, col. 19, lns. 53-67. The present application cannot reset the photodiode after transferring charge to the first storage node and before transferring charge to the second storage node because the purpose of transferring charge to two nodes in the present application is to transfer portions of the same photosignal to two storage nodes. Present Application, Abstract (“[T]he full charge store by both storage nodes.”), para. 27. If the present application reset the photosignal after transferring charge to the first storage node, the charge transferred to the second storage node would not be from the same photosignal. In Weale, the photosensor is reset between integration periods, thus the purpose of transferring charge to two nodes in Weale is to transfer two distinct photosignals to two storage nodes, not two portions of the same photosignal. Weale, Abstract (“[T]ransfer a first collected signal from the photo site to the first storage node during a first period, to transfer a second collected signal from the photo site to the second storage node during a second period.”). Because Weale resets the photosensor between charge transfers, the charges transferred to each storage node are from two separate photosignals.

In addition, Weale’s “image capture cycle” cannot be construed as the “integration period” of the present application because an integration period, as defined by both the present application and Weale, is preceded by resetting the photosensor and does not involve an interceding reset of the photosensor as in Weale’s “image capture cycle.” The present application defines an integration period without an interceding reset of the photosensor. *See* para. 31, FIG. 5. Likewise, Weale defines an integration period with photosensor resets occurring before and after, but not during, an integration period. *See* Weale, col. 12, lns. 13-23, col. 19, lns. 53-67. Conversely, Weale defines an “image capture cycle” that resets the photosensor between integration periods. *Id.* As a result, Weale and the present application define “integration period” differently than Weale’s “image capture cycle.”

In short, Weale’s “image capture cycle” cannot be construed as the “integration period” of the present application because the present application teaches away from such a construction

and the definition of “integration period” in the specifications of Weale and the present application is different than the definition of the “image capture cycle” in Weale. Accordingly, the Weale combinations cannot render the claims of the present application obvious for the additional reasons set forth in the Advisory Action.

According to the Final Rejection, claims 1, 2, 4, 6, 9, 10-12, 14, 16, 19-23, 25 and 27-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weale in view of U.S. Patent No. 6,710,804 (“Guidash ‘804”). This rejection is respectfully traversed.

Claim 1 is drawn to a pixel cell comprising “a first storage node for storing charge generated at a photosensitive element during an integration period prior to storing said charge at a floating diffusion region of said pixel cell; and a second storage node for storing a portion of said charge generated by said photosensitive element during the integration period that is not stored by said first storage node and prior to storing said portion of said charge at said floating diffusion region.” Claim 25 is drawn to a method for operating an image sensor comprising “receiving, at a first storage node of a pixel cell, charge generated by a photosensitive element of said pixel cell during an integration period; receiving, at a second storage node of said pixel cell, a portion of said charge generated by said photosensitive element during the integration period not stored at said first storage node; and transferring said charge from at least one of said first and second storage nodes to a floating diffusion region of said pixel cell.” Appellant respectfully submits that the alleged Weale and Guidash ‘804 combination does not teach or suggest these limitations.

To the contrary, Weale discloses a pixel cell for a CMOS sensor in which the “control circuitry causes the pixel to transfer a first collected signal from the photo site to the first storage node during a first period, [and] to transfer a second collected signal from the photo site to the second storage node during a second period that follows the first period.” Weale, col. 1, ln. 63-67. Weale therefore teaches storing charge from a first integration period on the first storage node and storing charge from a second integration period on a second storage node, but does not teach or suggest storing charge from the same integration period at two separate storage nodes. Indeed, Weale teaches that it is “advantageous ... to collect and store two or more frames worth of data and

then subsequently read these frames out at a subsequent point in time.” Thus, Weale expressly teaches away from a pixel cell comprising “a first storage node for storing charge generated at a photosensitive element during an integration period prior to storing said charge at a floating diffusion region of said pixel cell; and a second storage node for storing a portion of said charge generated by said photosensitive element during the integration period that is not stored by said first storage node and prior to storing said portion of said charge at said floating diffusion region,” as recited by claim 1.

The Advisory Action sustains the rejection of claims 1 and 25 because “[t]he ‘image capture cycle’ of Weale is construed as the ‘integration period’ of the instant application.” For the reasons stated above, Weale’s “image capture cycle” cannot be construed as the “integration period” of claims 1 and 25. Guidash ‘804 does not cure the deficiencies of Weale discussed above and, therefore, their combination does not render claims 1 and 25 obvious. Claims 11 and 33 contain limitations similar to those of claims 1 and 25, respectively, and are allowable at least for the same reasons. Claims 2, 4, 6, 9 and 10 depend from claim 1 and are allowable for at least the reasons mentioned above. Claims 12, 14, 16, 19, 20 and 21-23 depend from claim 11 and are allowable for at least the reasons mentioned above. Claims 27-32 depend from claim 25 and are allowable for at least the reasons mentioned above. Claim 34 depends from claim 33 and is allowable for at least the reasons mentioned above. Appellant respectfully requests that the rejection be withdrawn and the claims allowed.

Claims 3, 5, 7-8, 13, 15, 17-18 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weale in view of Guidash ‘804 and U.S. Patent No. 6,069,376 (“Merrill”). This rejection is respectfully traversed. Claims 3, 5 and 7-8 depend from claim 1, claims 13, 15 and 17-18 depend from claim 11, and claim 26 depends from claim 25 and are patentable over the alleged Weale and Guidash ‘804 combination for at least the reasons mentioned above. Merrill, which has been cited as allegedly teaching a gated storage node, does not cure the above-noted deficiencies of the Weale and Guidash ‘804 combination. Accordingly, Appellant respectfully requests that the rejection be withdrawn and the claims allowed.

Claims 24 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weale in view of U.S. Patent No. 6,160,281 (“Guidash ‘281”). This rejection is respectfully traversed. Claim 24 recites limitations similar to those of claim 11 and is patentable over Weale for at least the same reasons. Claim 35 depends from claim 33 and is allowable over Weale along with claim 33. Guidash ‘281, which has been cited as allegedly teaching at least two pixels sharing a common floating diffusion region, does not cure the above-noted deficiencies of Weale. Appellant respectfully requests that the rejection be withdrawn and the claims allowed.

Claims 36-37, 39, 41, 44 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weale in view of Guidash ‘804 and U.S. Patent Application No. 2003/0090575 (“Miymoto”). This rejection is respectfully traversed. Claim 36 recites limitations similar to those of claim 1 and is patentable over the alleged Weale and Guidash ‘804 combination for at least the reasons set forth above. Miymoto, which has been cited as allegedly teaching the use of a processor, does not cure the deficiencies of the Weale and Guidash ‘804 combination discussed above. Claims 37, 39, 41, 44 and 45 depend from claim 36 and are patentable for at least the same reasons. Accordingly, Appellant respectfully requests that the rejection be withdrawn and the claims allowed.

Claims 38, 40 and 42-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Weale in view of Guidash ‘804, Miymoto and Merrill. This rejection is respectfully traversed. Claims 38, 40 and 42-43 depend from claim 36 and are patentable over the alleged Weale, Guidash ‘804, and Miymoto combination for at least the reasons set forth above. Merrill, which has been cited as allegedly teaching a gated storage node, does not cure the above-noted deficiencies of the Weale, Guidash ‘804, and Miymoto combination. Accordingly, Appellant respectfully requests that the rejection be withdrawn and the claims allowed.

Accordingly, Appellant respectfully requests that the application be passed to issue without the further burden of preparing an Appeal Brief and continuing with this Appeal.